



SECTION A - A

REF. SOURCE

1 **MDC VACUUM PRODUCTS**
23842 CABOT BLVD.
HAYWARD, CA. 94545-1651
1-800-443-8817
FAX: 510-887-0626

- NOTES:

1. THIS IS A ULTRA - HIGH VACUUM PART (UHV)
A. WHEN MACHINE VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
 - a) CIMCOOL 5 STAR 49
 - b) TRIM SOL
2. ELECTROPOLISHING IS NEEDED BEFORE WELDING.
PRIOR TO ELECTROPOLISHING, THE CHAMBER MUST GO THROUGH MULTIPLE STEP LEAVING PROCESS FOLLOWING DEGREASING, WASHING AND DRY NITROGEN BLOW DOW. THE CHAMBER VACUUM SIDE SURFACE BEING POLISHED MUST BE FINER THAN 63 MICRON RMS AFTER ELECTROPOLISHING.
3. WELDS SHALL BE GAS TUNGSTEN
ARC (GTAW) OR TUNGSTEN NERT GAS (TIG) ON VACUUM SIDE OF JOINTS.
4. ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2×10^{-10} STANDARD COSEC PER LEAK TEST DIVISION. SUCH AS:
ALCATEL ASM-110TCL
VARIAN RSC OR MS-38
VEECO MS-9, MS-9 OR MS-96
LEAK POINT CEC 24-126
5. CALIBRATION OF THE LEAK DETECTOR SYSTEM SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO FINAL TEST.
6. FINAL TEST, RESULT MUST CONSIST OF SURROUNDING THE ASSEMBLY (BAGGING) WITH HELIUM. THE ASSEMBLY WILL BE REJECTED IF A $\geq 2\%$ DEFLECTION IN THE SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.
6. DIMENSIONS IN [] ARE MILLIMETERS
FOR REF. ONLY

[illegible]

ADVANCED PHOTON SOURCE	
W1-91 I.D. FRONT END COMMISSIONING FILTER LEFT VACUUM FLANGE WELDMENT ASSEMBLY	
QTY	ENGINEERING NUMBER
E	P4102010109-910100-01